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(a) Professional Preparation

Amherst College	Amherst, MA	Geology	AB	1975
California Inst. Tech.	Pasadena, CA	Geology, Geophysics	PhD	1979

(b) Appointments

2012 - present Annenberg Distinguished Visiting Fellow, Hoover Institution, Stanford University
2011 - 2015 Senior Fellow, Miller Institute for Basic Research in Science, UC Berkeley
1985 - present Professor of Earth and Planetary Science, University of California, Berkeley
1998 - present Professor of Astronomy, University of California, Berkeley
1998 - 2003 Executive Director, Miller Institute for Basic Research in Science, UC Berkeley
1982 - 1985 Assistant-Associate Professor, University of California, Berkeley
1979 - 1982 Assistant Professor, Harvard University
1979 - 1981 Materials Research Laboratory and Center for Earth & Planetary Physics,
Harvard University

(c) Products

Five Products Most Closely Related to the Proposed Project

1. **Jeanloz, R.**, Celliers, P. M., Collins, G. W., Eggert, J. H., Lee, K. K. M., McWilliams, R. S., Brygoo, S., and Loubeyre, P., 2007, Achieving high-density states through shock-wave loading of pre-compressed samples, *Proceedings of the National Academy of Sciences (US)*, **104**, 9172-9177.
2. McWilliams, R. S., Spaulding, D. K., Eggert, J. H., Celliers, P. M., Hicks, D. G., Smith, R. F., Collins, G. W., and **Jeanloz, R.**, 2012, Phase transformations and metallization of magnesium oxide at high pressure and temperature, *Science*, **338**, 1330-1333.
3. Smith, R. F., Eggert, J. H., **Jeanloz, R.**, Duffy, T. S., Braun, D. G., Patterson, J. R., Rudd, R. E., Biener, J., A. Lazicki, A., Hamza, A. V., Wang, J., Braun, T., Benedict, L. X., Celliers, P. M., and Collins, G. W., 2014, Ramp compression of diamond to 5 TPa: Experiments taking carbon to the Thomas-Fermi-Dirac regime, *Nature*, **511**, 330-333.
4. Millot, M., Hammel, S., Rygg, J. R., Celliers, P. M., Collins, G. W., Coppari, F., Fratanduono, D. E., **Jeanloz, R.**, Swift, D. C. and Eggert, J. H., 2018, Experimental evidence for superionic water using shock compression, *Nature Physics*, **14**, 297-302.
5. Celliers, P. M., Millot, M., Brygoo, S., McWilliams, R. S., Fratanduono, D. E., Rygg, J. R., Goncharov, A. F., Loubeyre, P., Eggert, J. H., Peterson, J. L., Meezan, N. B., Le Pape, S., Collins, G. W., **Jeanloz, R.**, and Hemley, R. J.. 2018, Insulator-metal transition in dense fluid deuterium, *Science*, **361**, 677-682.

Five Other Significant Products

1. Stixrude, L., and **Jeanloz, R.**, 2008, Fluid helium at conditions of giant planetary interiors, *Proceedings of the National Academy of Sciences (US)*, **105**, 11071-11075.
2. Millot, M., Dubrovinskaia, N., Cernok, A., Blaha, S., Dubrovinsky, L., Braun, D. G., Celliers, P. M., Collins, G. W., Eggert, J. H., and **Jeanloz, R.**, 2015, Shock compression of stishovite and melting of silica at planetary interior conditions, *Science*, **347**, 418-420.
3. Li, M., Zhang, M. S., Zhang, H., Zhang, G., Wang, Zhao, F. J., Sun, C., and **Jeanloz, R.**, 2018, Continuous sound velocity measurements along the shock Hugoniot curve of quartz, *Physical Review Letters*, **120**, 215703.

4. Greenberg, E., Leonov, I., Layek, S., Konopkova, Z., Pasternak, M. P., Dubrovinsky, L, **Jeanloz, R.**, Abrikosov, I. A. and Rozenberg, G. Kh., 2018, Pressure-induced site-selective Mott insulator-metal transition in Fe₂O₃, *Physical Review X*, **8**, 031059.
5. Hsieh, S., Bhattacharyya, P., Zhu, C., Mittiga, T., Smart, T. J., Machado, F., Kobrin, B., Höhn, T. O., Rui, N. Z., Kamrani, M., Chatterjee, S., Choi, S., Zaletel, M., Struzhkin, V. V., Moore, J. E., Levitas, V. I., **Jeanloz, R.** and Yao, N. Y., 2019, Imaging stress and magnetism at high pressures using a nanoscale quantum sensor, *Science*, **366**, 1349-1354.

(d) Synergistic Activities

1. Chair, Committee on International Security and Arms Control, US National Academy of Sciences, 2005 - present
2. Editor, *Annual Review of Earth and Planetary Sciences*, Annual Reviews, 1996 - present
3. Editorial Affairs Committee, Annual Reviews, 2013 - present
4. Lawrence Livermore National Security, Los Alamos National Security/TRIAD Science and Technology Committee, 2007 – present
5. UK Research Excellence Framework, REF2014, 2021, International Member 2012 - present